"Clean Cities University: AFV 101 & 102 Workshop"

Clean Cities Conference Philadelphia, PA

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National Alternative Fuels Training Consortium (NAFTC)



Headquartered at West Virginia University

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AFV 101/102 Workshop

Why are We Here Today?

One Reason – Many Americans Drive These?





AFV 101/102 Workshop

Of course, other countries have simpler means of Transportation

Like This



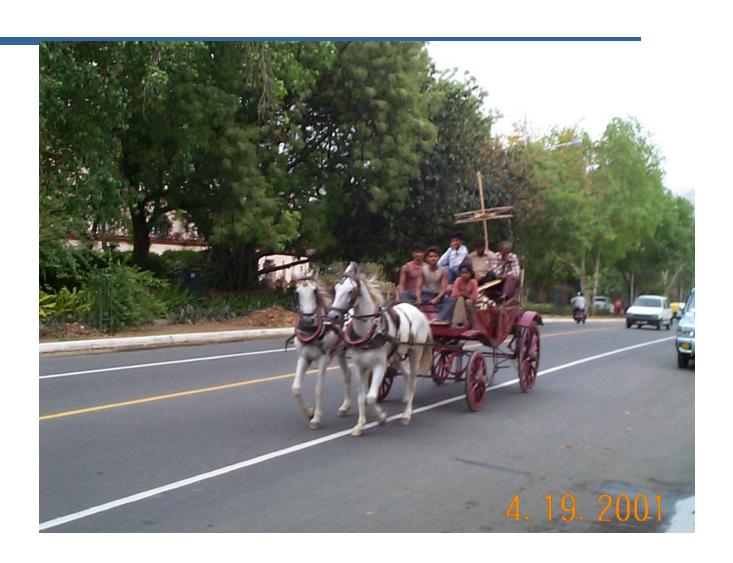
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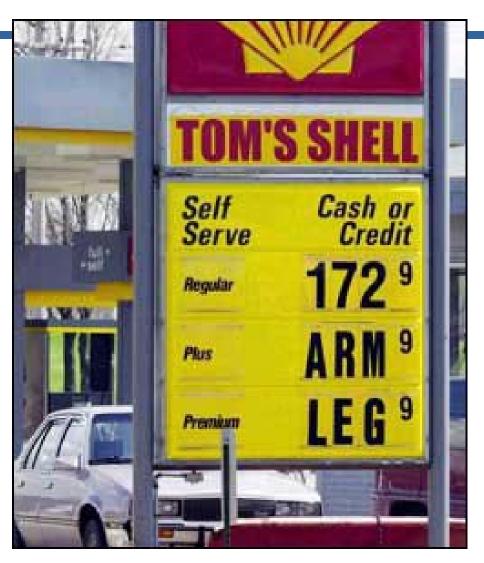
Or This



But we have to have these....







In the U.S., 199 million cars burn 4000 gallons of gasoline every second !!!

In transportation alone, we in the U.S. use 5 million more barrels of Oil per day than we produce !!!

The U.S. sends over a billion dollars a week overseas for foreign oil !!!

Over 56 million Americans live in areas where smog is a problem !!!

Two-thirds of the US population breaths air above safe emission levels, according to the American Lung Association !!!

An estimated \$45 billion dollars is spent annually on health care in U.S. as a result of air pollution !!!

Now, let's talk about a solution:

Alternative Fuel Vehicles or AFVs

AFVs - Overview

What are AFVs?

- Vehicles that run on fuels that are "substantially not petroleum" (EPACT)
- These fuels include:
 - Natural Gas
 - Electricity
 - Propane
 - Biodiesel
 - Alcohol Fuels such as Ethanol or Methanol
 - Hydrogen
 - Coal-derived Liquid Fuels
 - Fuels other than alcohols derived from biological materials such as vegetable oil-based fuels

National Alternative Fuels Training Consortium (NAFTC)

The NAFTC is a Nationwide Consortium consisting of a group of partners dedicated to developing and delivering training and awareness activities about Alternative Fuel Vehicles (AFVs)

National Alternative Fuels Training Consortium (NAFTC)

The NAFTC partners include:

- West Virginia University
- National Training Centers

National Alternative Fuels Training Consortium (NAFTC)

The NAFTC partners include:

- Affiliate Members
- Associate Members
- Other Partners

NAFTC Program Goal

 To establish a national pool of trained automotive technicians skilled in the operation, maintenance and safety procedures of Alternative Fuel Vehicles

NAFTC Training Audience

- Automotive instructors from community colleges, vocational/ technical institutions and other educational institutions
- Fleet managers and motor pool trainers

NAFTC Training Audience

- Automotive dealership technicians (OEM)
- Automotive technicians (OEM customers, independents, etc.)
- Industry and trade representatives
- Others interested in AFV training

Training Services Offered by NAFTC

- Initial training for automotive instructors in core curriculum
- Follow-on training for automotive instructors in advanced curriculum

Training Services Offered by NAFTC

- Training partnerships
- Assistance to instructors in program implementation
- Continuing education

NAFTC Example Customers

- Companies who have attended NAFTC Training:
 - US Department of Energy/Clean Cities Program
 - US Environmental Protection Agency
 - US Postal Service
 - US Air Force, US Army
 - NASA

NAFTC Example Customers

- Companies who have attended NAFTC Training:
 - OEMs such as Ford, GM, Honda,
 - Utilities, City, State & Federal Government, Universities, transit agencies and others
 - Ryder Trucks, Snap-On Tools and other industries
 - Taipei, Taiwan industry and government representatives

Training Curriculum/Programs (Current)

NAFTC Offers:

- Overview of Alternative Fuel Vehicles
- Natural Gas Vehicles: System Integration and Service
- Natural Gas Vehicles: CNG CylinderInspection and Certification

Training Curriculum/Programs (Current)

NAFTC Offers:

- Propane Vehicle Training
- Transient Emissions Training
- Forklift and Material Handling AFV Applications

Training Curriculum/Programs (In Development)

NAFTC Will Offer:

- Heavy Duty Gaseous Fuel Applications (new for 2001)
- LNG Overview (new in 2001)
- On-Board Diagnostics II (new in 2001)

Training Curriculum/Programs (In Development)

NAFTC Will Offer:

- Stationary Unit Applications (new in 2001)
- Electric/Hybrid Vehicles Overview for
 - Technicians and Fleet Managers (new in 2001)
- Ethanol Vehicle Overview for Technicians (new in 2001)

Training Services - Manual (Instructors & Technicians)



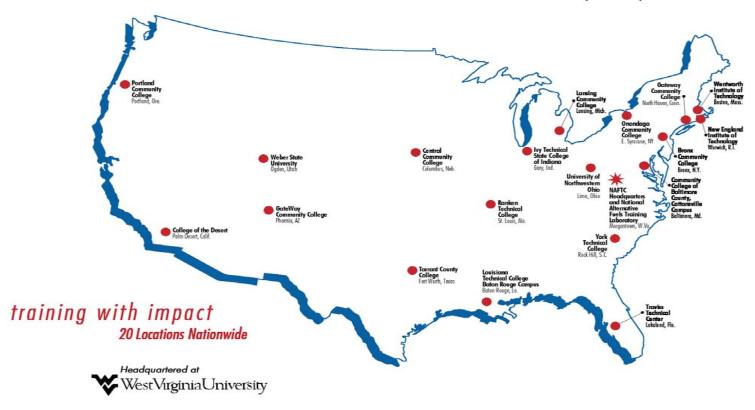
NAFTC NTC Sites



National Alternative Fuels Training Consortium

... because clean air matters

http://naftp.nrcce.wvu.edu



- Bronx Community College Bronx, NY
- Community College of Baltimore, MD
 Baltimore County –
 Catonsville Campus
- Central Community College Columbus, NE
- College of the Desert Palm Desert, CA

- Gateway Comm. College North Haven,CT
- GateWay Comm. College Phoenix, AZ
- Ivy Tech State College Gary, IN
- Lansing Comm. College Lansing, MI
- Louisiana Tech. College Baton Rouge, LA
- New England Inst. of Tech. Warwick, RI

- University of Northwestern Lima, OHOhio
- Onondaga Comm. College Syracuse, NY
- Portland Comm. CollegePortland, OR
- Ranken Technical College St. Louis, MO
- Tarrant County College Ft. Worth, TX

- Weber State University Ogden, UT
- Wentworth Inst. of Tech. Boston,MA
- Traviss Technical Center Lakeland,FL
- York Technical College Rock Hill, SC
- West Virginia University, Morgantown, WV
 (Headquarters for NAFTC & NAFTL)

NAFTC Training Availability

at aach NITC

- AFV Training is available at this time by:
 - Attending any course offerings at our National Alternative Fuels Training Laboratory,
 West Virginia University
 - Traveling to any of our National Training
 Centers throughout the United States
 - Designing specific AFV Course for a customer

Note: Specific training availability varies₄₀

Contact the NAFTC for More Information

National Alternative Fuels Training Consortium

West Virginia University

http://naftp.nrcce.wvu.edu

Today's NAFTC Team

- Al Ebron, West Virginia University
- Dennis Smith, US DOE, Clean Cities
- Ric Glenn, West Virginia University
- Ed Farrell, Wentworth Institute of Tech.
- Nick Wagoner, Central Comm. College
- Bob Kosak, York Technical College
- Collin Messer, College of the Desert

On with the Program...